

Tribal Fisheries Management

Introduction

Indian tribes have always lived on every major watershed in what is now the State of Washington. From time immemorial, tribal cultures, spirituality and economies have centered on fishing, hunting and gathering the natural resources of this region.

In the mid-1850s, when the United States sought to make land available in the Pacific Northwest for non-Indian settlers, the tribes signed treaties through which they reserved that which was most important to them. Among those reserved rights was the right to harvest salmon in all of their usual and accustomed fishing places.

That promise was broken in the years that followed, but in 1974 a federal district court reaffirmed the tribes' reserved rights in *U.S. vs. Washington* – the Boldt Decision – which was subsequently upheld by the U.S. Supreme Court. This ruling established the tribes as co-managers of the salmon resource.

Tribal fisheries departments have evolved to fulfill their roles as co-managers of the salmon resource. Early in the 1980s, with only a few years to gain expertise, tribes began substantial participation in fisheries planning. As court involvement in the planning process faded away, the tribal and state co-managers began to work out their differences by acting cooperatively. By the mid-1980s, the tribes and the state began holding annual meetings to map out fishing seasons.

Today, tribes operate comprehensive programs addressing every aspect of natural resource management, from water quality, to forest management, shellfish, wildlife and more. Tribal fisheries management has continued to evolve as emerging fisheries have gained new importance and the challenge of managing salmon continues to grow.



Muckleshoot and Puyallup tribal hatchery personnel examine a salmon returning to the White River system.
Photo: T. Meyer

Tribal Fisheries Management Program

Each treaty Indian tribe in western Washington typically maintains an individual fishery management staff that includes a fisheries manager who oversees staff working in the areas of harvest management, enhancement, habitat protection and enforcement. In some cases, several tribes have joined together to form collective fishery management organizations.

The fisheries manager receives direction from the tribal fish committee and tribal council, which balances harvest needs with obligations to the resource. Along with tribal harvest staff, the fisheries manager develops fishery plans and run size forecasts, assesses spawning escapement needs and monitors stock status, among other duties. By assessing in-season run sizes, tribal fisheries staff are able to issue up-to-date regulations in respect to changing conditions.

The tribal hatchery manager, with the aid of support staff, implements the tribe's enhancement program, overseeing hatchery programming and production.

According to the most recently available statistics, treaty Indian tribes in western Washington released about 41 million healthy young salmon from tribal hatcheries in 2002. The tribes are active participants in a hatchery reform effort now under way in western Washington. The program, now in its third year, is aimed at helping to conserve naturally spawning salmon populations and supporting sustainable fisheries.

As valuable salmon habitat disappears, tribal habitat staff are also continually charged with the task of protecting what rearing and spawning habitat is left. Tribes monitor activities, such as irrigation, forest practices and urban growth, which could impact salmon habitat. Tribes also regularly conduct in-stream habitat improvement and restoration projects.

Each tribe or tribal cooperative also maintains an enforcement program to ensure that fishing regulations are observed by tribal members. Tribal enforcement officers work cooperatively with state and federal fish and wildlife enforcement personnel to protect natural resources. Violations of tribal fishing laws are referred to tribal courts for prosecution.

The tribes also conduct a treaty fisherman identification and vessel registration program. When a treaty fisherman sells his catch, his identification number is included on a fish receiving ticket that records the number, weight, species and location of harvest. The information is an important part of the Treaty Indian Catch Monitoring Program managed by the Northwest Indian Fisheries Commission. Catch data, which is critical to harvest management, is shared on a same-day basis with the Washington Department of Fish and Wildlife (WDFW).

Salmon Management

From the moment of its birth, a Pacific Northwest salmon begins an epic journey through waters off the U.S. and Canadian coasts and through waters in the North Pacific before returning to the stream of its birth to spawn and die.

Fisheries in Puget Sound, the Strait of Juan de Fuca and nearshore coastal waters are co-managed by the treaty Indian tribes and WDFW.

As a sovereign government, each tribe regulates and coordinates its own fishery management program within its specific, adjudicated Usual and Accustomed fishing area. Tribal management jurisdiction includes six species of salmon, halibut, bottom fish, shellfish and other marine species. Tribes conduct fisheries off the Washington coast, in coastal rivers and bays, and throughout the inland waters of Puget Sound and its tributaries.

WDFW manages the state's share of the salmon resource, as well as other food fish and shellfish for commercial and sport user groups.

Tribal and state managers work cooperatively through two overlapping processes, the Pacific Fisheries Management Council (PFMC) and the North of Falcon process (NOF), to shape fishing seasons that protect the weakest salmon stocks. The PFMC is a public forum established by the federal government and is charged with creating a comprehensive fisheries plan, including the varied interests of tribal, state and federal managers, commercial and sport fishing groups and environmental groups.

While the PFMC is planning ocean fisheries, treaty tribes and states of Oregon and Washington in the NOF process are outlining their inshore and coastal fisheries. The North of Falcon process is so named because it deals with fisheries north of Cape Falcon, Oregon, to the U.S./Canada border. Through NOF, tribal and state biologists forecast expected salmon returns to specific areas. Population estimates are based on biological data collected during salmon migration, along with habitat information and weather conditions that also effect salmon populations. The number of fish available to harvest, determined through NOF, is what is left after escapement needs are met. Escapement is the number of fish needed to spawn and perpetuate a run at a desired level.

Adult salmon returning to Washington migrate through both U.S. and Canadian waters and are harvested by fishermen from both countries. The 1985 Pacific Salmon Treaty, developed through cooperation by the tribes, state governments, U.S. and Canadian federal governments, and sport and commercial fishing groups, helps fulfill conservation goals and the right of each country to reap the benefit of its own fisheries enhancement efforts.

The treaty is implemented by the eight-member bilateral Pacific Salmon Commission (PSC), which includes representatives of federal, state and tribal governments. The PSC does not regulate salmon fisheries, but provides regulatory advice and recommendations, and a forum for the two countries to reach agreement on mutual fisheries issues. Three regional panels provide technical and regulatory advice to the PSC. In years when treaty agreements are not reached, the tribes have worked to ensure fisheries are still managed responsibly. Indian and non-Indian harvests are taken from a portion of the run surplus to escapement needs of the stock, or from a percentage of the overall run size.

In-season management between treaty tribes and the state is an ongoing process during the fishing season. While the agreements during NOF outline the goals of the upcoming fisheries, in-season planning is the process of how those goals evolve into on-the-ground fisheries. By looking at fishing effort, weather conditions and several other factors that could not be foreseen in preseason meetings, the tribes and the state shift fisheries to best protect the salmon resource. Each tribe regularly issues “emergency regulations,” in addition to their annual fishing regulations, that reflect these changes. Emergency regulations, usually issued about a week or two in advance, outline the days that can be fished and the reason for the fishery.

In addition to serving at the policy level on the PSC and its panels, tribal representatives also participate on the many committees and work groups providing technical support for the treaty’s implementation. Tribes also conduct research as an integral part of the treaty’s implementation.

2003 Tribal Fisheries Program Activities

Following are some examples of tribal fisheries management activities during the past year:

Makah Tribe

Wa’atch Creek is flowing again after more than 50 years of silence. That’s because the Makah Tribe removed a fish-blocking dam that will open about a mile of habitat on the tribe’s Neah Bay reservation. The dam was built in 1958 by the U.S. Air Force to increase the water supply to its now-abandoned base.

“In addition to adding instream habitat for fish, removing this dam will open several acres of wetlands important for juvenile fish rearing,” said Andy Ritchie, a biologist for the tribe.

The 25-foot dam was removed at a cost of about \$150,000. Large logs were placed in the stream bed below and above the dam site to act as sediment filters.

“The idea is to provide nature with the tools to do its own healing,” said Ritchie. “Wood creates micro-habitats that allow fish to thrive.”

Chinook, coho and steelhead are all expected to benefit from the re-opened habitat.

Squaxin Island Tribe

On a sunny morning, Squaxin Island tribal fishermen stretch a net from the beach out into Zangle Cove, just north of Olympia. Bob and Karen Farr are setting a beach seine for coho salmon; this will be their second pull of the day. “We’re looking for bubbles or ripples, any sort of sign that there are fish in there,” said Bob Farr.

“This fishery on net pen coho is a good example of a harvest opportunity being made available, while a relatively weak wild salmon stock is protected,” said Joe Peters, tribal fisheries biologist. In recent years, the tribe studied catches in the South Sound beach seine fishery and discovered that because of location, timing and gear restrictions, up to 97 percent of the fish tribal fishermen were harvesting were hatchery fish.

“Squaxin fishermen are simply not fishing where wild coho are, so they rarely see them,” Peters said. Because net pen salmon have no river or stream to return to, they mill around the area close to Peale Passage. Wild coho, on the other hand, don’t linger in the outside passages, and head to nearby inlets where Squaxin Island fishers are not allowed.

Since the 1970s, the tribe has seen decreasing numbers of wild coho returning to the streams in the South Sound. “The reason wild coho are having a hard time is because habitat is being lost and degraded,” said Peters. “In addition to strong harvest and hatchery management, there needs to be dedication to habitat protection and restoration. Solving the habitat question is the most important aspect to ensure these salmon will always keep returning.”

Quinault Indian Nation

The Quinault Indian Nation (QIN) has completed three years of monitoring to see if Lake Quinault is a candidate for fertilization, a process that leads to improved food availability for sockeye salmon. Sockeye (or blueback) salmon are culturally and economically vital to the nation.

“The lake is a crucial link in the life cycle of our sockeye,” said Bill Armstrong, fisheries biologist for the QIN. The adult fish spawn in the lake tributaries and their young rear in the lake for one or two years before going to the ocean. Biologists and technicians have sampled the lake for the past three years to establish seasonal levels of lake productivity and whether nutrient levels could be enhanced to improve biological productivity. “The results confirm that Lake Quinault is a good candidate for fertilization,” Armstrong said. “What we’ve discovered is that the lake is nutrient limited.” Phosphorus and nitrogen levels are very low, which in turn limits production of phytoplankton (microscopic water plants). Low phytoplankton concentrations keep populations of microscopic animals (zooplankton) at low levels that limit the amount of food available for young sockeye salmon to eat.

Lake Quinault has a temporary burst of plankton growth during the spring, but the lake is unable to maintain the production because of the low nutrient levels. When fertilizing a lake, nitrogen and phosphorous are added. “By adding nitrogen and phosphorus, you are providing the opportunity for an increase in the production of phytoplankton which in turn would provide more food for zooplankton,” said Armstrong. “One goal would be to increase phytoplankton and zooplankton populations to the point where they can carry over through fall and winter, continuing to build through the next growing season.”

The tribe has undertaken several projects to increase the numbers of sockeye returning to the Lake Quinault system, including sockeye supplementation projects.

Other activities included:

- ◆ Implemented salmon habitat restoration, research, wild stock supplementation and other projects as part of the Pacific Coastal Salmon Recovery initiative.
- ◆ Conducted extensive data collection and monitoring necessary for Pacific Salmon Treaty implementation.
- ◆ Developed inter-tribal allocation plans to allow harvest opportunities for all tribes while protecting weak salmon runs.
- ◆ Closely monitored fishery harvest levels to ensure targets were not being exceeded and conducted in-season test fisheries to update run forecasts.
- ◆ Collected and compiled catch data in cooperation with the state for fisheries management planning and allocation.
- ◆ Conducted spawning surveys to confirm estimates of the number of salmon needed to sustain salmon runs at a desired level.
- ◆ Released more than 41 million healthy salmon and steelhead from tribal hatcheries in western Washington waters. Both Indians and non-Indians will harvest returning adults.
- ◆ Participated in cooperative enhancement projects with state and federal agencies, sportfishing groups and others.
- ◆ Tagged nearly 3.5 million juvenile hatchery salmon to obtain information on ocean survival, hatchery program effectiveness and other factors.
- ◆ Conducted salmon habitat restoration projects on rivers throughout western Washington, such as repairing and replacing culverts and placing logs into riverbeds to create rearing habitat.

For More Information

For more information about the natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA 98516; or call (360) 438-1180. Visit the NWIFC home page at www.nwifc.org.